

NewPre2300 Compact Edge Controller



Powerful Performance

- Equip with ARM dual-core Cortex-A72 + quad-core Cortex-A53 processors, with a clock frequency of 1.8GHz, 4GB DDR3 memory, and 32GB eMMC FLASH, providing computational resources for various industrial-grade on-site applications such as edge data collection, protocol conversion, real-time control and machine vision.

High-reliability Industrial Design

- Adopt industrial grade fanless design with rail installation and operates within a wide temperature range of -20 °C to 60 °C . Suitable for indoor installation environments. Comply with EMC Level 3 standards and IP40 protection rating.

Rich IO Interface

- Support multiple network modes: 3G/4G/5G, WI-FI interface and 2 x 10/100/1000Base-T(X) Ethernet ports. Also support 2 x RS485 and 2 x RS232 serial communication ports, 8 x DI (Digital Input) and 8 x DO (Digital Output) interfaces.

Fast Network Deployment

- Rich intelligent communication capabilities.
- Support device management platform to efficiently manage a large number of distributed remotely accessed devices.
- Support local web configuration and cloud-based device management.

Visual Analysis

- Equip with a quad-core ARM Mali-T860 GPU, which supports OpenGL ES 1.1/2.0/3.0/3.1 and OpenCL.
- Support 4K VP9 and 4K 10-bit H265/H264 video decoding at up to 60fps.

Extensive Industrial Protocols

- The module is equipped with a set of indicator lights that accurately display the module and channel's operational.

Protection Design

- Embed an extensive set of industrial protocols, including Modbus TCP, Modbus RTU, S7, PPI, EtherCAT, EtherNet/IP, OPC UA, MQTT.
- Support custom protocols and third-party extensions.

Services Integration

- Support software-defined control, enabling integration of multiple functionalities such as data collection, control, edge computing and machine vision into a single solution.

Product Specifications

NewPre2300-R3399		
Main System	CPU	2 x Cortex-A72 + 4 x Cortex-A53, Maximum clock frequency is 1.8GHz.
	RAM	4GB LPDDR3
	Storage	32GB eMMC
	GPU	Quad-core ARM Mali-T860 GPU
	Video Processor	Supports 4K VP9 and 4K 10-bit H265/H264 formats video decoding
Interface	Network Interface	2 x 10/100/1000Base-T(X)
	USB	USB2.0 x 1, USB3.0 x 1
	Serial Port	2 x RS485, 2 x RS232
	IO	8 x DI, 8 x DO (optional)
	CAN Interface	1x CAN (optional)
	Display Port	1x HDMI
Power	Input Voltage	24 V DC
	Input Terminals	3-pin 5.08mm pitch pluggable terminal block connector
	Power	<20W
	Overload Protection	Support
	Reverse polarity protection	Support
Mechanical Structure	Case	Metal
	Heat Dissipation Method	Passive cooling, fanless
	IP Rating	IP40
	Dimensions mm	140x170x60 mm (W x H x D)
	Installation Method	Rail-type
Environment	IP Rating Operating Temperature	-20°C ~ 60°C
	Storage Temperature	-40°C ~85°C
	Relative Humidity	5% ~95% no condensation
Industry Standard	EMI	FCC CFR47 Part 15, EN55022/CISPR22, Class A
	EMS	IEC 61000-4-2 (ESD), Air: ±8kV; Contact: ±6kV IEC 61000-4-3 (RS), 10V/m (80MHz ~2GHz) IEC 61000-4-4 (EFT), DC Power Port: ±2kV, Singal Port: ±2kV IEC 61000-4-5 (Surge), Power Port: ±1kV/ DM, ±2kV/CM, Singal Port: ±1kV (line to line), Singal Port: ±2kV (line to earth) IEC 61000-4-6 (CS), Signal ports: 0.15-80MHz at 10V/m, Power ports: 0.15-80MHz at 10V/m
	Mechanical	IEC60068-2-6(vibration) IEC60068-2-27(shock) IEC60068-2-32(free fall)
5G (Optional)	Network Mode	5G NR/LTE-FDD/LTE-TDD/WCDMA
	Network Protocol	Sub-6Ghz
	Frequency Band	SMA Interface (external thread/internal hole), 4 pieces
	Antenna	Drawer Card Socket
	SIM Card	Rail-type

WI-FI Optional	Standards and Frequency Band	Support IEEE802.11b/g/n, 2.4G Frequency Band. Support AP mode, Station mode Support IEEE802.11ac, 5.8G Frequency Band, Support AP mode, Station mode
	Security Encryption	Support multiple encryption methods such as WEP, WPA, and WPA2
	Transmit Power	26dBm (11b), 21.5dBm (11g), 20dBm (11n), 16dBm (11ac)
	Receiver Sensitivity	<-72dBm@54Mbps
	Antenna	SMA Interface (external thread/internal hole), 2 pieces

» PRODUCT SELECTION GUIDE

Device Model	Specifications
NewPre2300-R3399-M2D9MW0-0204A	2 network ports, 4 serial ports, 2USB, HDMI, simplified version
NewPre2300-R3399-M2D9MW3-0204A	2 network ports, 4 serial ports, 2USB, HDMI, 5G, WIFI
NewPre2300-R3399-M2D9MW1-0204C01A16DIO	2 network ports, 4 serial ports, 1CAN, 8DI8DO, HDMI, WIFI, 2USB
NewPre2300-R3399-M2D9MW3-0204C01A16DIO	2 network ports, 4 serial ports, 1CAN, 8DI8DO, 2USB, HDMI, WIFI, 5G
NewPre2300-R3399-M2D9MW5-0204C01A16DAI	2 network ports, 4 serial ports, 1CAN,8DI8DO,2USB, HDMI,5G, Support NPU accelerator card
NewPre2300-R3399-M2D9MW5-0204C01A16DIO	2 network ports, 4 serial ports, 1CAN,8DI8DO,2USB, HDMI,5G

» DIMENSION DIAGRAM

